AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A vapor compression system for use with a working fluid, comprising:
   a compressor operable to increase the pressure and temperature of the working fluid;
   a condenser operable to absorb heat from the working fluid;
   an expansion valve operable to decrease the pressure of the working fluid;
   an evaporator operable to transfer heat to the working fluid; ~~and~~
   a charging element operable to apply an electric charge to the working fluid~~.~~; and
   an insulating element positioned adjacent the charging element wherein the insulating element is formed of a material having a triboelectric working function that is similar to the triboelectric working function of the working fluid.

2. (Original) The vapor compression system of claim 1 wherein the charging element is formed of a material that has a triboelectric working function that is substantially different than the triboelectric working function of the working fluid.

3. (Previously Presented) The vapor compression system of claim 1 wherein the charging element is positioned so that the working fluid flows over a surface of the charging element.

4. (Original) The vapor compression system of claim 3 wherein the charging element is configured so that flowing the working fluid over the charging element is operable to triboelectrically charge the working fluid.

5. (Previously Presented) The vapor compression system of claim 1 comprising a fluid path through which the working fluid flows, wherein the charging element is

positioned within the fluid path.

6. (Previously Presented) The vapor compression system of claim 1 wherein the charging element is formed of glass.

7. (Previously Presented) The vapor compression system of claim 1 wherein the charging element is formed of a non-metallic material.

8. (Cancelled)

9. (Previously Presented) The vapor compression system of claim 1 comprising a fluid path through which the working fluid flows, wherein the charging element is positioned along the fluid path between the expansion valve and the compressor.

10. (Previously Presented) The vapor compression system of claim 1 wherein the evaporator comprises an inlet and the charging element is positioned adjacent the inlet.

11. (Currently Amended) A heat exchange system, comprising:
a working fluid operable to absorb heat;
a fluid path comprising a conduit through which the working fluid flows; ~~and~~
a triboelectric charging element positioned along the fluid path so that the working fluid flows over a surface of the charging element, wherein the charging element is formed of a material having a triboelectric working function that is substantially different than the triboelectric working function of the working fluid, wherein the working fluid is triboelectrically charged by flowing over the charging element~~.~~; and
an insulating element positioned adjacent the charging element wherein the insulating element is formed of a material having a triboelectric working

function that is similar to the triboelectric working function of the working fluid;

12. (Previously Presented) The heat exchange system of claim 11 wherein the charging element is formed of glass.

13. (Previously Presented) The heat exchange system of claim 11 wherein the charging element is formed of a non-metallic material.

14. (Cancelled)

15. (Currently Amended) A method for enhancing the performance of a working fluid in a vapor compression system, said method comprising the steps of:

compressing the working fluid to elevate the pressure and temperature of the working fluid;

discharging the working fluid to a condenser to release heat from the working fluid and convert the fluid to a liquid phase;

discharging the working fluid from the condenser to an expansion device to convert the working fluid to a vapor phase;

applying an electrical charge to the working fluid; ~~and~~

wherein the vapor compression system comprises a triboelectric element positioned along the fluid path of the working fluid and the step of applying an electric charge to the working fluid comprises the step of triboelectrically charging the working fluid;

positioning an insulating element adjacent the triboelectric element, wherein the insulating element is formed of a material that has a triboelectric working function that is similar to the triboelectric working function of the working fluid; and

discharging the working fluid from the expansion device and transferring heat to

the working fluid.

16. (Cancelled)

17. (Original) The method of claim 16 wherein the triboelectric element is formed of a material that has a substantially different triboelectric working function than the working fluid.

18. (Previously Presented) The method of claim 16 wherein the step of triboelectrically charging the working fluid comprises flowing the working fluid over a surface of the triboelectric element.

19. (Currently Amended) The method of claim 15 wherein the step of applying an electrical charge comprises applying an electrical charge to the working fluid as the working fluid flows along a fluid path between the expansion device ~~valve~~ and the compressor.

20. (Original) The method of claim 15 wherein the step of applying an electrical charge comprises the step of triboelectrically charging the working fluid.

21. (Original) The method of claim 20 wherein the step of triboelectrically charging the working fluid comprises flowing the working fluid over a surface of the triboelectric element.

22. (Cancelled).

23. (Original) The method of claim 15 wherein the vapor compression system comprises a conduit for carrying the working fluid and the method comprises grounding a portion of the conduit to dissipate the applied electrical charge.

24. (New) A method for enhancing the performance of a working fluid in a vapor compression system comprising a conduit for carrying the working fluid, said method comprising the steps of:

compressing the working fluid to elevate the pressure and temperature of the working fluid;

discharging the working fluid to a condenser to release heat from the working fluid and convert the fluid to a liquid phase;

discharging the working fluid from the condenser to an expansion device to convert the working fluid to a vapor phase;

applying an electrical charge to the working fluid;

grounding a portion of the conduit to dissipate the applied electrical charge; and

discharging the working fluid from the expansion device and transferring heat to the working fluid.

25. (New) The method of claim 24 wherein the vapor compression system comprises a triboelectric element positioned along the fluid path of the working fluid and the step of applying an electric charge to the working fluid comprises the step of triboelectrically charging the working fluid.

26. (New) The method of claim 24 wherein the step of applying an electrical charge comprises applying an electrical charge to the working fluid as the working fluid flows along a fluid path between the expansion device and the compressor.

27. (New) A heat exchange system, comprising:

a working fluid operable to absorb heat;

a fluid path comprising a conduit through which the working fluid flows;

a triboelectric charging element positioned along the fluid path so that the working fluid flows over a surface of the charging element, wherein the charging element is formed of a material having a triboelectric working

function that is substantially different than the triboelectric working function of the working fluid, wherein the working fluid is triboelectrically charged by flowing over the charging element; and

a grounding element along the conduit to dissipate an electrical charge applied by the triboelectric charging element.

28. (Previously Presented) The vapor compression system of claim 27 comprising a fluid path through which the working fluid flows, wherein the charging element is positioned along the fluid path between an expansion valve and a compressor.

29. (Previously Presented) The vapor compression system of claim 27 wherein an evaporator positioned along the fluid path comprises an inlet and the charging element is positioned adjacent the inlet.

30. (New) The heat exchange system of claim 27 wherein the charging element is formed of a non-metallic material.